



In the Claims

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AMENDMENTS

Please cancel claims 65-67 without prejudice or disclaimer. Please add the following new claims 74-94:

74. (New) A pharmaceutical composition comprising a peptide having less than fifteen amino acids and a pharmaceutically acceptable carrier, wherein:

the peptide comprises an epitope consisting of about 8 to about 11 amino acids; and  
the epitope corresponds to an HLA-A3 motif having an amino acid at position two from the amino terminal amino acid of the epitope selected from the group consisting of L, M, V, S, A, T, and F and having K as the C-terminal amino acid.

75. (New) A pharmaceutical composition comprising a nucleic acid which encodes a peptide having less than fifteen amino acids and a pharmaceutically acceptable carrier, wherein:

the peptide comprises an epitope consisting of about 8 to about 11 amino acids; and  
the epitope corresponds to an HLA-A3 motif having an amino acid at position two from the amino terminal amino acid of the epitope selected from the group consisting of L, M, V, S, A, T, and F and having K as the C-terminal amino acid.

76. (New) A pharmaceutical composition comprising a peptide having less than fifteen amino acids and a pharmaceutically acceptable carrier, wherein:

the peptide comprises an epitope consisting of about 8 to about 11 amino acids;  
the epitope is an HIV-1 epitope; and  
the epitope corresponds to an HLA-A3 motif having an amino acid at position two from the amino terminal amino acid of the epitope selected from the group consisting of L, M, V, S, A, T, and F and having K as the C-terminal amino acid.

77. (New) A pharmaceutical composition consisting essentially of a peptide epitope having about 8 to about 11 amino acids and a pharmaceutically acceptable carrier, wherein the peptide epitope corresponds to an HLA-A3 motif having an amino acid at position two from the amino terminal amino acid of the peptide epitope selected from the group consisting of L, M, V, S, A, T, and F and having K as the C-terminal amino acid.

78. (New) A pharmaceutical composition consisting essentially of a nucleic acid which encodes a peptide epitope having about 8 to about 11 amino acids and a pharmaceutically acceptable carrier, wherein the peptide epitope corresponds to an HLA-A3 motif having an amino acid at position two from the amino terminal amino acid of the peptide epitope selected from the group consisting of L, M, V, S, A, T, and F and having K as the C-terminal amino acid.

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79. (New) A pharmaceutical composition consisting essentially of a peptide epitope having about 8 to about 11 amino acids and a pharmaceutically acceptable carrier, wherein:  
the peptide epitope is an HIV-1 peptide epitope; and  
the peptide epitope corresponds to an HLA-A3 motif having an amino acid at position two from the amino terminal amino acid of the peptide epitope selected from the group consisting of L, M, V, S, A, T, and F and having K as the C-terminal amino acid.

80. (New) The pharmaceutical composition of any one of claims 74-79, wherein the amino acid at position two from the amino terminal amino acid of the epitope is selected from the group consisting of L, M, V, and T and the C-terminal amino acid is K.

81. (New) The pharmaceutical composition of claim 80, wherein the amino acid at position two from the amino terminal amino acid of the epitope is T and the C-terminal amino acid is K.

82. (New) The pharmaceutical composition of claim 81, wherein the epitope consists of the amino acid sequence TTLFCASDAK.

83. (New) A diagnostic reagent comprising a peptide having less than fifteen amino acids, wherein:

the peptide comprises an epitope consisting of about 8 to about 11 amino acids; and

the epitope corresponds to an HLA-A3 motif having an amino acid at position two from the amino terminal amino acid of the epitope selected from the group consisting of L, M, V, S, A, T, and F and having K as the C-terminal amino acid.

84. (New) A diagnostic reagent comprising a peptide having less than fifteen amino acids, wherein:

the peptide comprises an epitope consisting of about 8 to about 11 amino acids;

the epitope is an HIV-1 epitope; and

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the epitope corresponds to an HLA-A3 motif having an amino acid at position two from the amino terminal amino acid of the epitope selected from the group consisting of L, M, V, S, A, T, and F and having K as the C-terminal amino acid.

85. (New) A diagnostic reagent consisting essentially of a peptide epitope having about 8 to about 11 amino acids, wherein the peptide epitope corresponds to an HLA-A3 motif having an amino acid at position two from the amino terminal amino acid of the peptide epitope selected from the group consisting of L, M, V, S, A, T, and F and having K as the C-terminal amino acid.

86. (New) A diagnostic reagent consisting essentially of a peptide epitope having about 8 to about 11 amino acids, wherein:

the peptide epitope is an HIV-1 peptide epitope; and

the peptide epitope corresponds to an HLA-A3 motif having an amino acid at position two from the amino terminal amino acid of the peptide epitope selected from the group consisting of L, M, V, S, A, T, and F and having K as the C-terminal amino acid.

87. (New) The diagnostic agent of any of claims 82-86, wherein the amino acid at position two from the amino terminal amino acid of the epitope is selected from the group consisting of L, M, V, and T and the C-terminal amino acid is K.

88. (New) The diagnostic agent of claim 87, wherein the amino acid at position two from the amino terminal amino acid of the epitope is T and the C-terminal amino acid is K.

*Sub 12* 89. (New) The diagnostic agent of claim 88, wherein the peptide consists of the amino acid sequence TTLFCASDAK.

*Sub 13* 90. (New) An isolated cytolytic T cell line which specifically recognizes a complex of an HLA-A3 molecule and a peptide epitope of about 11 amino acids having the amino acid sequence TTLFCASDAK.

*Sub E1* 91. (New) An isolated antigenic HLA-A3 binding peptide derived from a HIV-1 protein having the following formula:

Xaa<sub>1</sub>Xaa<sub>2</sub>Xaa<sub>3</sub>Xaa<sub>4</sub>Xaa<sub>5</sub>Xaa<sub>6</sub>Xaa<sub>7</sub>Xaa<sub>8</sub>Xaa<sub>9</sub>Xaa<sub>10</sub>

wherein Xaa<sub>2</sub> is Leu, Met, Ile, Val, Ser, or Thr, and Xaa<sub>10</sub> is Lys or Arg, and said isolated peptide provides lysis by cytotoxic T cells specific for a complex of said HLA molecule and said decapeptide.

92. (New) The isolated antigenic HLA-A3 binding peptide of claim 91, wherein Xaa<sub>2</sub> is Thr and Xaa<sub>10</sub> is Lys.

*Sub 14* 93. (New) The isolated antigenic HLA-A3 binding peptide of claim 92 consisting of the amino acid sequence TTLFCASDAK.

*Sub 15* 94. (New) An isolated nucleic acid molecule consisting of a nucleotide sequence encoding the amino acid sequence TTLFCASDAK.